

DECISION RECORD
Categorical Exclusion 3 (CX3), WY-070-390CX3-12-82
Section 390, Energy Policy Act of 2005
Ballard Petroleum Holdings, LLC, Leavitt Federal Trust 21-7 TH APD
BUREAU OF LAND MANAGEMENT, BUFFALO FIELD OFFICE

DECISION: The BLM approves the application for permit to drill (APD) from Ballard Petroleum Holdings, LLC, to drill 1 oil well and construct associated infrastructure as described in the CX3 worksheet, WY-070-390CX3-12-82, which is incorporated here by reference.

Compliance. This decision complies with:

- Federal Land Policy and Management Act of 1976 (FLPMA) (43 USC 1701); DOI Order 3310.
- National Environmental Policy Act of 1969 (NEPA) (42 USC 4321).
- National Historic Preservation Act of 1966 (16 USC 470).
- Endangered Species Act of 1974 (16 USC 1531).
- Buffalo and Powder River Basin (PRB) Final Environmental Impact Statement (FEIS), 1985, 2003.
- Buffalo Resource Management Plan (RMP) 1985, Amendments 2001, 2003, 2011.

A summary of the details of the approval follows. The CX worksheet, WY-070-390CX3-12-82, includes the project description, including site-specific mitigation measures which are incorporated by reference into that worksheet from earlier analysis. The proposed well is approximately 20 miles southwest of Wright, Wyoming, in southern Campbell County. The Leavitt Trust Federal 21-7 TH proposal had 1 APD to develop and produce oil from the coal formations of the Powder River Basin (PRB). The proposed horizontal oil well is within the Wilkinson Federal POD boundaries, which includes an area of approximately 1,284 acres. The proposed surface hole (drill site) is located NENW of Section 27 of T42N-R72W. The primary objective is to drill horizontally to the Turner Formation at 10,390 feet, total vertical distance (TVD).

Approvals: BLM approves the following 1 oil APD and associated infrastructure:

#	Well Name/ Well #	QTR	Sec	TWP	RNG	Lease	CX Number
1	Leavitt Federal Trust 21-7TH	NENW	7	42N	72W	WYW138125	WY-070-390CX3-12-82

Limitations: There are no deferrals or denials.

THE FINDING OF NO SIGNIFICANT IMPACT (FONSI). Congress, the Department of Interior and BLM affirmed there was no significant impact of a like-structured project when they created this CX3 worksheet process and its limiting parameters. Thus a FONSI and an EIS is not required. There was a similar finding for the environmental analysis to which this project tiers or incorporates by reference.

COMMENT OR NEW INFORMATION SUMMARY. Since implementation of this CX3 proposal BFO received an updated new sage-grouse policy and maintained that policy into the Buffalo RMP.

DECISION RATIONALE. The approval of this project is because:

1. Mitigation measures and conditions of approval (COAs), analyzed in the CX3 worksheet, in environmental impact statements or environmental analysis to which the CX3 worksheet tiers or incorporates by reference, will reduce environmental impacts while meeting the project's need.
2. The approved project conditioned by its design features and COAs, will not result in any undue or unnecessary environmental degradation. There are no conflicts anticipated or demonstrated with

current uses in the area. This decision approving the Leavitt Trust Federal 21-7 TH well complies with the Energy Policy Act of 2005, Section 390, 43 CFR 1610.5, 40 CFR 1508.4, and 43 CFR 46.215. The PRB FEIS analyzed and predicted that the PRB oil and gas development would have significant impacts to the region's sage-grouse population. The impact of this development cumulatively contributes to the potential for local extirpation yet its effect is acceptable because it is outside priority habitats and is within the parameters of the PRB FEIS, ROD, and current BLM and Wyoming sage-grouse conservation strategies.

3. Approval of this project conforms to the terms and the conditions of the 1985 Buffalo RMP (BLM 1985) and subsequent update (BLM 2001) and amendments (BLM 2003, 2011). This project complies with the breadth and constraints of CX3, Energy Policy Act of 2005, and subsequent policy.
4. The selected alternative will help meet the nation's energy need, revenues, and stimulate local economies by maintaining workforces.

The Operator, in their APD, shall:

- Comply with all applicable federal, state, and local laws and regulations.
 - Offer water well agreements to the owners of record for permitted water wells within 0.5 mile of a federal conventional producing well in the POD (PRB ROD, p. 7).
 - Provide water analysis from the well.
5. The project is clearly lacking in wilderness characteristics because it is amidst gas development.
 6. This decision does not foreclose the lessee or operator to propose a new or supplementary plan for developing the federal oil and gas lease(s) in this project area, including submission of additional APDs to drain minerals in accord with lease rights and law. This decision does not foreclose the lessee or operator to propose using external pumping units via a sundry application process.
 7. Ballard Petroleum certified there is a surface use agreement with the landowners.
 8. This approval is subject to adherence with all of the operating plans, design features, and mitigation measures contained in the surface use plan of operations, drilling plan, and information in the individual APD.

ADMINISTRATIVE APPEAL: This decision is subject to administrative appeal in accord with 43 CFR 3165. Request for administrative appeal must include information required under 43 CFR 3165.3(b) (State Director Review), including all supporting documentation. Such a request must be filed in writing with the State Director, Bureau of Land Management, P.O. Box 1828, Cheyenne, Wyoming 82003, no later than 20 business days after this Decision Record is received or considered to have been received. Any party who is adversely affected by the State Director's decision may appeal that decision to the Interior Board of Land Appeals, as provided in 43 CFR 3165.4.

for Field Manager:  Date: 5/9/12

Categorical Exclusion 3 (CX3), WY-070-390CX3-12-82
Section 390, Energy Policy Act of 2005
Ballard Petroleum Holdings, LLC, Leavitt Federal Trust 21-7 TH APD
BUREAU OF LAND MANAGEMENT, BUFFALO FIELD OFFICE

Description of the Proposed Action

Ballard Petroleum proposes to drill one well and construct associated infrastructure as follows:

Table 1.1. Proposed Well

#	Well Name/ Well #	QTR	Sec	TWP	RNG	Lease	CX Number
1	Leavitt Federal Trust 21-7TH	NENW	7	42N	72W	WYW138125	WY-070-390CX3-12-82

The proposed horizontal oil well is within the Wilkinson Federal POD boundaries, which includes an area of approximately 1,284 acres. The project area is located approximately 20 miles southwest of Wright, Wyoming, in southern Campbell County. The proposed surface hole (drill site) is located NENW of Section 27 of T42N-R72W. Elevation in the project range is 5,094 feet. The topography is characterized by gently sloped draws rising to mixed sagebrush and grassland uplands. Ephemeral tributaries of Porcupine Creek and Spring Creek drain the project area. The climate in the area is semi-arid, averaging 10-14 inches of precipitation annually, about 60% of which occurs between April and September.

Reasonably foreseeable development in the Wilkinson Federal POD Environmental Assessment (EA) (WY-070-EA11-38, approved November 12, 2010) and its locality to include but not limited to the approved Wilkinson Federal POD, will fill-in to 80-acre spacing. This comports with the PRB development anticipated in the PRB FEIS, (see narrative in Section 2, No Action Alternative).

Surface owners: Richard W. Leavitt Trust

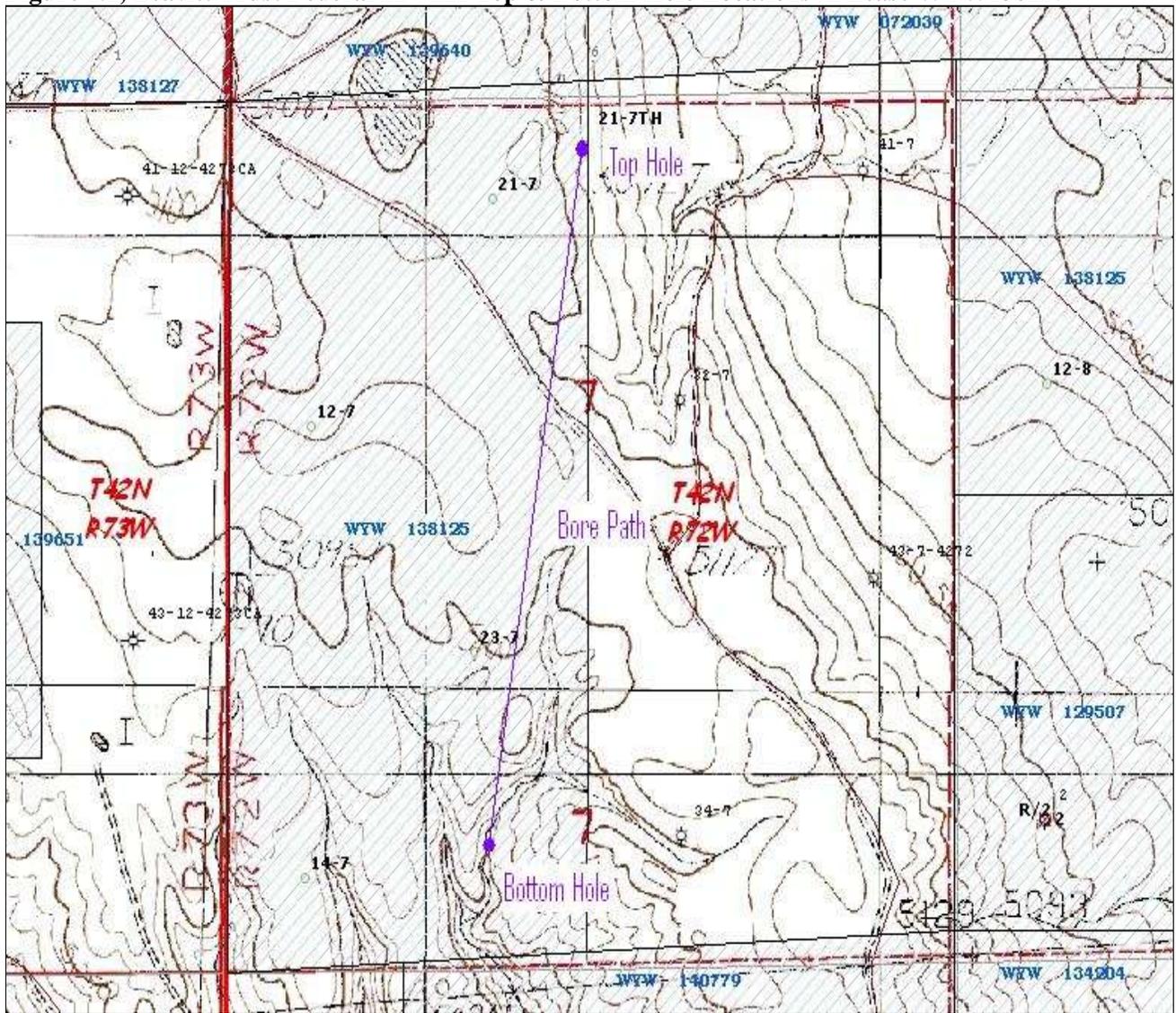
The proposed action is to explore by drilling for, and possibly develop, oil reserves in geologic mineral formations leased by Ballard Petroleum. Ballard Petroleum proposes drilling and developing 1 oil well into federal mineral estate. The primary objective is to drill horizontally to the Turner Formation at 10,390 feet, Total Vertical Distance (TVD).

The surface hole location is on private surface located over federal minerals at 395 feet FNL, 2555 feet FWL, NENW, Lot 7, Section 7, T42N R72W. The bottom hole location is 664 feet FSL and 1939 feet FWL, Lot 18, Section 7, T42N, R72W. The horizontal section is 4,328 feet long. As shown in Figure 1.1 below, the surface hole location is on private surface over federal oil and gas mineral estate in federal lease WYW138125. The horizontal bore terminates at the bottom hole location in federal oil and gas mineral estate, and is also in federal lease WYW138125.

Ballard Petroleum submitted a notice of staking (NOS) on October 8, 2011, to the BFO. After an onsite was conducted on October 25, 2011, the NOS was converted to an application for permit to drill (APD) received on December 23, 2011. The onsites evaluated the proposal and modified it as necessary to mitigate environmental impacts. The BLM sent a post-onsite deficiency letter to Ballard Petroleum on January 25, 2012.

Full effects of the action and recommended mitigation measures are in the Leavitt Trust Federal 21-7TH surface use plan, Wilkinson Federal POD EA, WY-070-EA11-88, Drake 31-29HT EA, WY-070-EA11-253, and BLM Conditions of Approval (COAs) for Conventional Application for Permit to Drill, Appendix A.

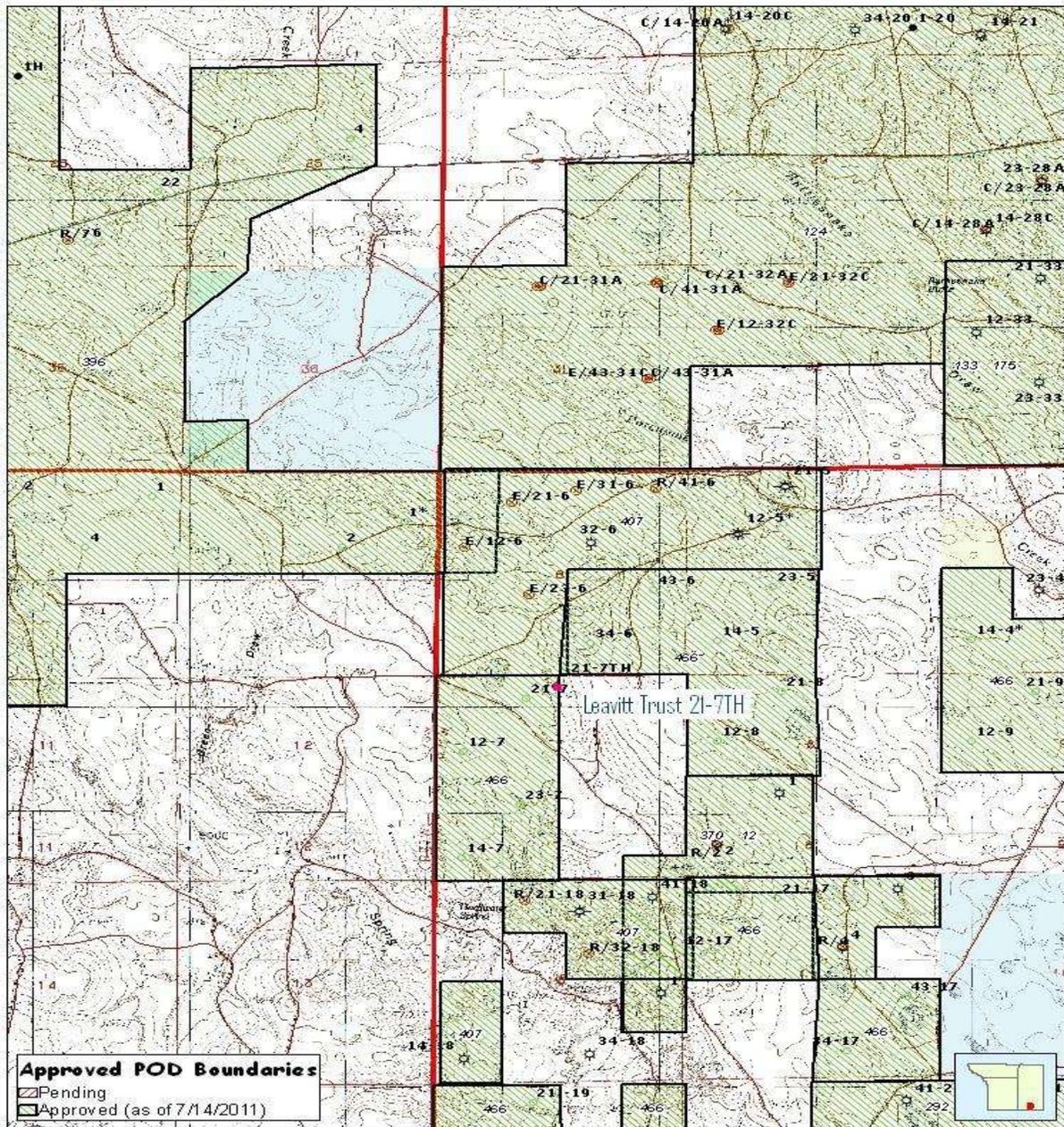
Figure 1.1, Leavitt Trust Federal 21-7TH Top & Bottom Hole Locations in Lease WYW138125



Drilling, Construction & Production design features include:

- Ballard Petroleum anticipates completing drilling and construction in 2 years. Drilling and construction is year-round in the region. Weather may cause delays, but delays rarely last multiple weeks. Timing limitations in the form of COAs and/or agreements with surface owners may impose longer temporal restrictions. The operator anticipates that estimated drilling duration will be 41 days.
- A road network that will consist of existing improved all-weather roads; existing primitive (2-track) roads to be upgraded to all-weather improved roads; and a proposed improved well access road. The operator will utilize existing Verde POD roads; an existing State of Wyoming improved road; and private surface roads. A road maintenance agreement will be ratified on shared roads to maintain existing roads in a condition the same as or better than before operations began.
- There will be a reserve pit at this oil well location during drilling and completion.

Figure 1.2 Leavitt Trust Federal 21-7 TH inside Approved POD Boundaries



- Hydraulic fracturing operations are planned as a ‘plug & perf’ operation done in stages. The process is anticipated require 14 days to complete. All water used for hydraulic fracturing will come from municipal water supplies from Wright or Gillette, Wyoming. All fresh water will be contained in 400-500 bbl rental hydraulic fracturing tanks and no surface pits will be used to hold this water. No additional well pad disturbance is anticipated for hydraulic fracturing operations. Completion flowback water will be held in tanks on location and trucked offsite to an approved disposal area.
- No off-site ancillary facilities are planned for this project. No staging areas, man camps/housing facilities are anticipated to be used off-site. Working trailers and sleeping trailers will be placed on the well pad during the drilling and completion of the well.

- If the well becomes a producer, production facilities will be located at the well site and will include a pumping unit, storage tanks, buildings, oil-water separator (heater-treater). There will be no pits at this producing oil well location.
- Dikes will be constructed completely around production facilities, i.e. production tanks, water tanks, and heater treater. The dikes will be constructed of corrugated steel, approximately 3 feet high, and hold capacity of the largest tank plus 10%. The load-out line will be outside of the dike area. A drip barrel or “Getty-Box” will be installed under the end of all load-out lines.
- An existing and proposed above ground powerline will be utilized if the well becomes a producer. Power will be provided by 3rd party contactor, Powder River Energy. It is anticipated that new construction of overhead power will begin at the existing 3-phase overhead lines in the SWSW of Section 8, T42N R72W, and continue adjacent to the well pad.
- Since this well is proposed approximately 0.25 miles of the Spring Creek lek, the operator will ensure noise levels at the edge of the lek do not exceed 49 decibels; as prescribed in the Buffalo RMP ROD.
- Well pad disturbance during construction and drilling will be approximately 4.0 acres. Once the well is completed, any area of the well pad not needed for production will be reclaimed for interim reclamation.
- Ballard has committed to constructing the project between August 1 and January 31, outside of the breeding season for migratory birds, including raptors, in order to reduce the potential for Migratory Bird Treaty Act violations.

Additionally, Leavitt Trust Federal 21-7 TH well will use existing infrastructure for Wilkinson Federal POD and Verde POD wells. For a detailed description of design features and construction practices associated with the proposed project, refer to the surface use plan (SUP) and drilling plan included with the APD. Also see the subject APD for maps showing the proposed well location and associated facilities described above. Total surface disturbance for the proposed action is 15.35 acres.

Table 1.2. Disturbance Summary Leavitt Trust Federal 21-7TH well:

Facility	Number or Miles	Factor	Disturbance
Engineered Pad	1 @ 400 ft x 400 ft	160,000 sq ft	3.67 acres
Engineered Pad Cut & Fill	varies	varies	0.33 acres
Improved Template Roads No Corridor	2.08 mile	30 ft	7.59 acres
Pipeline Connection tie-in	2,047 ft	30 ft	1.41 acres
Proposed Overhead Power 3rd Party PreCorp	1.29 mile	15 ft	2.35 acres
Total Surface Disturbance			15.35 acres

Plan Conformance, Compliance, and Justification with the Energy Policy Act of 2005

The Energy Policy Act of 2005, Section 390(a) subjects oil or gas exploration or development to a rebuttable presumption that the use of a categorical exclusion under the National Environmental Policy Act (NEPA) applies. Thus BLM must use an Energy Policy Act, Section 390(b), CX unless BLM rebuts the presumption. This CX worksheet is NEPA compliance categorically excluded from an EA or EIS or their analysis; it is not an exclusion from all analysis. (40 CFR 1508.4 and BLM H-1790, p. 17.) The proposed action conforms with the terms and conditions of the Approved Resource Management Plan (RMP) for the public lands administered by the BLM, BFO, 1985, the PRB FEIS, January 2003, and the Record of Decision (ROD) and Resource Management Amendments for the Powder River Oil and Gas Project, Amendments of 2001, 2011 as required by 43 CFR 1610.5, 40 CFR 1508.4, and 43 CFR 46.215. The Leavitt Trust Federal 21-7 TH APD and area are clearly lacking in wilderness characteristics as they are amidst extensive natural gas development. BLM finds that the conditions and environmental effects found in the senior EA and PRB FEIS remain valid.

The applicable categorical exclusion from the Energy Policy Act of 2005, Section 390, is exclusion number (b)(3) which is *drilling an oil or gas well within a developed field for which an approved land use plan or any environmental document prepared pursuant to NEPA analyzed such drilling as a reasonably foreseeable activity, so long as such plan or document was approved within 5 years prior to the date of spudding the well.*

BLM has 3 requirements to use a Section 390 CX3, (BLM H-1790, Appendix 2, #3, p. 143):

- 1) The proposed APD is in a developed oil or gas field (any field with a completed confirmation well).

Table 1.3 is a list of existing/approved PODs that are within or adjacent to the Leavitt Federal Trust 21-7th project area. This information shows the reader that BLM conducted analysis.

Table 1.3. Adjacent or Overlapping Oil & Gas Well POD Development by Decision Date

#	POD Name	Environmental Assessment #	# of Approved or Producing Wells	Decision Date
1	Wilkinson Federal POD	WY-070-EA11-38	28 CBNG	November 12, 2010
2	Drake 31-29HT	WY-070-EA11-253	1 Oil	October 6, 2011
3	Verde POD	WY-070-EA08-177	11 CBNG	September 30, 2008
4	Leavitt POD	WY-070-EA08-170	18 CBNG	September 19, 2008
5	Stoddard POD	WY-070-EA07-010	15 CBNG	December 7, 2006

- 2) There is an existing NEPA document (and the RMP) containing reasonably foreseeable development scenario for this action. There are several existing NEPA documents that reasonably foresaw development to spud additional wells to fill in 80 acre well-spacing. BLM reviewed these documents and determined they considered the potential environmental effects associated with the proposed activity at a site specific level. In addition, all approved EAs tier into the PRB FEIS (2003). The PRB EIS analyzed foreseeable development in the PRB. The PRB foreseeable development included 3,200 oil wells and drilling CBNG wells on 80 acre-spacing resulting in about 51,000 CBNG wells and over 3,000 oil wells. The Leavitt Trust Federal 21-7TH well is in the foreseeable development scenario of 80 acre well-spacing that was analyzed in EAs in Table 1.4 and in the PRB FEIS's Appendix A.

Table 1.4. EAs Which Account for Reasonably Foreseeable Development Scenario

#	POD Name	Environmental Assessment #	# of Approved or Producing Wells	Decision Date
1	Wilkinson Federal POD	WY-070-EA11-38	28 CBNG	November 12, 2010

- 3) The tiered NEPA document was finalized or supplemented within 5 years of spudding (drilling) the proposed well.

The Leavitt Trust Federal 21-7TH CX3 tiers to the following approved EAs listed below in Table 1.5.

Table 1.5. NEPA Document Finalized Within Anticipated Spud Date of Leavitt Trust Fed 21-7TH

#	POD Name	Environmental Assessment #	# of Approved or Producing Wells	Decision Date
1	Wilkinson Federal POD	WY-070-EA11-38	28 CBNG	November 12, 2010
2	Drake 31-29HT	WY-070-EA11-253	1 Oil	October 6, 2011

In summary the EAs in Tables 1.3 to 1.5 analyzed in detail the anticipated direct, indirect, residual, and cumulative effects that would result from the approval of these APDs and associated support structure in

Leavitt Trust Federal 21-7TH well is similar to both the qualitative and quantitative analysis in the above mentioned EAs. The BFO reviewed the EA and found that the EA considered potential environmental effects associated with the proposal at a site specific level. The Leavitt Trust Federal 21-7TH well will share infrastructure for Verde POD and Wilkinson Federal POD. Confirmation wells for Leavitt Trust Federal 21-7 TH well are those wells drilled and completed in Wilkinson Federal POD, Verde POD, and the Drake 31-29HT well. The APD's surface use and drilling plans are incorporated here by reference and show adequate protection of surface lands and ground water, including the Fox Hills formation.

Plan of Operations

The proposal conforms to all Bureau standards and incorporates appropriate best management practices, required and designed mitigation measures determined to reduce the effects on the environment. BLM reviewed and approved a surface use plan of operations describing all proposed surface-disturbing activities pursuant to Section 17 of the Mineral Leasing Act, as amended. This CX3 worksheet also incorporates and analyzes the implementation of committed mitigation measures contained in the SUP, drilling plan, in addition to the Standard COAs found in the PRB FEIS ROD, Appendix A.

Wildlife

A BLM wildlife biologist reviewed the proposed APD. The wildlife biologist determined that the proposed APD, combined with the COAs (and design features), is: (1) consistent with the FEIS and its supplements, the RMP and the above tiered EAs; and (2) consistent with the programmatic biological opinion (ES-6-WY-02-F006), which is an update from the PRB FEIS, Appendix K. The biologist performed onsite visits to the project area on July 6 and October 25, 2011. The proposed well and infrastructure are a result of attempts by Ballard and the BLM to reduce impacts to greater sage-grouse and ferruginous hawks, and incorporates recommendations provided to the BLM by the U.S. Fish and Wildlife Service. The affected environment and environmental consequences for wildlife are discussed in, and anticipated to be similar to, the Wilkinson Federal POD EA, (WY-070-EA11-38).

Raptors

Effects to raptors were analyzed in the Wilkinson POD. Timing limitations were added to the POD as conditions of approval for both general raptors, and specifically for ferruginous hawks. Ballard has committed to completing the project outside of the nesting season (February 1 – July 31) for migratory birds, including raptors. A condition of approval consistent with Ballard's commitment for migratory birds will be applied to the permit for the Leavitt Fed 21-7TH well.

Greater Sage-grouse (sage-grouse)

Effects to sage-grouse were analyzed in the Wilkinson POD. The BLM typically applies a controlled surface use buffer of 0.25 miles for sage-grouse leks. The proposed well is located approximately 0.25 miles from the Spring Creek lek in sagebrush grassland habitat. Ballard is proposing to use an existing road, occurring within approximately 600 feet of the lek, to access the well. Traffic, light and heavy duty trucks, will increase with approval of the well. Heavy trucks are expected to visit the well every 1 to 2 days to haul oil or water from the location, in addition to pumper traffic from equipment inspections. To mitigate impacts to grouse at the lek during the breeding season, the BLM will apply a timing limitation restricting use of the road from March 15 – May 15, for the life of the project.

In March, 2012, WY BLM released the report, "Viability analyses for conservation of sage-grouse populations: Buffalo Field Office, Wyoming," indicating that a viable population of sage-grouse remains in the PRB, but the combined impacts of multiple stressors, including West Nile virus (WNV) and energy development, threaten that viability (Taylor et al 2012). The information in the report identified that the effects of energy development are detectable at a larger spatial scale than had been analyzed in the documents listed in Table 1.3, above. Additional information regarding the population viability analysis, and its influence on cumulative effects from energy development is found in the affected environment and

environmental effects sections (Section 3.7.12 and 4.8.2 – Candidate Species – Greater Sage-grouse (Sage-grouse)) of the Mufasa Fed 11-31H Well EA, WY-070-EA12-062, incorporated here by reference. Given that the Leavitt 21-7 TH is a single well located adjacent to a previously approved CBNG well, this new information does not substantially change the analysis included in the Wilkinson POD.

Water Resources

The historical use for groundwater in this area was for stock water or domestic purposes. A search of the WSEO Ground Water Rights Database showed 4 registered stock and domestic water wells within 1 mile of the proposed well(s) in the project area with depths ranging from 110 to 270 feet. For additional information on groundwater, refer to the PRB FEIS (2003), Affected Environment, pp. 3-1 to 3-36.

Adherence to the drilling COAs, the setting of casing at appropriate depths, following safe remedial procedures in the event of casing failure, and using proper cementing procedures should protect any fresh water aquifers above the target coal zone. This will ensure that ground water will not be adversely impacted by well drilling and completion operations.

At the time of permitting, the volume of water that will be produced in association with these federal minerals is unknown. The operator will have to produce the well(s) for a time to be able to estimate the water production. In order to comply with the requirements of Onshore Order #7, Disposal of Produced Water, the operator will submit a Sundry to the BLM within 90 days of first production which includes a representative water analysis as well as the proposal for water management.

Historically, the quality of water produced in association with conventional oil and gas has been such that surface discharge would not be possible without treatment. Initial water production is quite low in most cases. There are three common alternatives for water management: Re-injection, deep disposal or disposal into pits. All alternatives would be protective of groundwater resources when performed in compliance with State and Federal regulations.

Cultural

Ballard performed a Class III cultural resource inventory in the project area prior to on-the-ground project work (BFO project no. 70120027). Ballard provided a Class III cultural resource inventory following the Archeology and Historic Preservation, Secretary of the Interior's Standards and Guidelines (48CFR190) and the *Wyoming State Historic Preservation Office Format, Guidelines, and Standards for Class II and III Reports* to BFO. Ardeth Hahn, BLM Archaeologist, reviewed the report for technical adequacy and compliance with BLM standards, and determined it to be adequate. No cultural resources are in the project area.

No historic properties will be impacted by the proposed project. Following the Wyoming State Protocol Section VI(A)(1) the BLM electronically notified the Wyoming State Historic Preservation Officer (SHPO) on April 20, 2012, that no historic properties exist within the area of potential effects. If any cultural values [sites, artifacts, human remains (Appendix L PRB FEIS and ROD)] are observed during operation of this lease/permit/right-of-way, they will be left intact and the Buffalo Field Manager notified. Further discovery procedures are in the Standard COA (General)(A)(2).

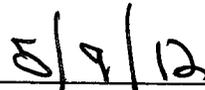
Decision and Rationale on Action

The COAs provide mitigation and further the justification for this decision and may not be segregated from project implementation without further NEPA review. I reviewed the plan conformance statement and determined that the proposed Leavitt Trust Federal 21-7 TH CX3 APD and infrastructure conform to

the applicable land use plans. I reviewed the proposal to ensure the appropriate exclusion category as described in Section 390 of the Energy Policy Act of 2005 is correct. It is my determination that there is no requirement for further environmental analysis.



Field Manager



Signature Date

Contact Person, Debby Green, Natural Resource Specialist, Buffalo Field Office, 1425 Fort Street, Buffalo WY 82834, 307-684-1100

APPENDIX A

**CONDITIONS OF APPROVAL FOR CONVENTIONAL APPLICATION
FOR PERMIT TO DRILL**

**Categorical Exclusion 3 (CX3), WY-070-390CX3-12-82
Section 390, Energy Policy Act of 2005
Ballard Petroleum Holdings, Leavitt Trust Federal 21-7 TH APD**

Operator: Ballard Petroleum Holdings

Field Office: Buffalo Field Office
Address: 1425 Fort Street
Buffalo, Wyoming 82834

Office Telephone Number: 307-684-1100

The spud date will be reported electronically, (see website location above) to the Authorized Officer 24 HOURS BEFORE SPUDDING, unless otherwise required in site specific conditions of approval.

Spud Notice Site:

http://www.wy.blm.gov/minerals/og/og_notices/spud_notice.php

List of Wells:

#	Well Name/ Well #	QTR	Sec	TWP	RNG	Lease	CX Number
1	Leavitt Federal Trust 21-7TH	NENW	7	42N	72W	WYW138125	WY-070-390CX3-12-82

PROGRAMMATIC COAs

Programmatic mitigation measures are those measures, identified in the PRB FEIS ROD and determined through analysis, which may be appropriate to apply at the time of APD approval if site specific conditions warrant. These mitigation measures can be applied by BLM, as determined necessary at the site-specific NEPA APD stage, as COAs and will be in addition to stipulations applied at the time of lease issuance and any standard COA.

Wildlife

1. For any surface-disturbing activities proposed in sagebrush shrublands, the Companies will conduct clearance surveys for sage grouse breeding activity during the sage grouse's breeding season before initiating the activities. The surveys must encompass all sagebrush shrublands within 0.5 mile of the proposed activities.
2. The Companies will locate facilities so that noise from the facilities at any nearby sage grouse display grounds does not exceed 49 decibels (10 dBA above background noise) at the display ground.
3. The Companies will construct power lines to minimize the potential for raptor collisions with the lines. Potential modifications include burying the lines, avoiding areas of high avian use (for example,

wetlands, prairie dog towns, and grouse leks), and increasing the visibility of the individual conductors.

SITE SPECIFIC

Surface Use

1. The cut and fill slopes of the Leavitt Trust Federal 21-7 TH engineered pad will require erosion control methods (e.g. silt fencing, waddles, water bars, etc.) to prevent surface runoff, and silting in of drainages. All erosion control methods will be installed prior to drilling activities taking place.
2. Improved roads used in conjunction with accessing federal wells must be fully built (including all water control structures such as wing ditches, culverts, relief ditches, low water crossings, surfacing, etc.) and functional to BLM standards prior to drilling of the well.
3. All permanent above-ground structures (e.g., production equipment, tanks, etc.) not subject to safety requirements will be painted to blend with the natural color of the landscape. The paint used will be a color which simulates "Standard Environmental Colors." The color selected for this (site, project), is COVERT GREEN (18-0617 TPX).
4. Interim reclamation for the Leavitt Trust Federal 21-7 TH engineered pad will include reclamation of any area of the pad not needed for production.
5. Reserve pits will be adequately fenced during and after drilling operations until pit is reclaimed so as to effectively keep out wildlife and livestock. Adequate fencing, in lieu of more stringent requirements by the surface owner, is defined as follows:
 - Construction materials will consist of steel or wood posts. Three or four strand wire (smooth or barbed) fence or hog panel (16-foot length by 50-inch height) or plastic snow fence must be used with connectors such as fence staples, quick-connect clips, hog rings, hose clamps, twisted wire, etc. Electric fences will not be allowed.
 - Construction standards: Posts shall be firmly set in ground. If wire is used, it must be taut and evenly spaced, from ground level to top wire, to effectively keep out animals. Hog panels must be tied securely into posts and one another using fence staples, clamps, etc. Plastic snow fencing must be taut and sturdy. Fence must be at least 2-feet from edge of pit. 3 sides fenced before beginning drilling, the fourth side fenced immediately upon completion of drilling and prior to rig release. Fence must be left up and maintained in adequate condition until pit is closed.

The operator may choose to adequately fence the perimeter of location in lieu of fencing reserve pits.

6. The reserve pit will be lined with an impermeable liner. An impermeable liner is any liner having a permeability less than 10⁻⁷ cm/sec. The liner will be installed so that it will not leak and will be chemically compatible with all substances that may be put in the pit. Liners made of any man-made synthetic material will be of sufficient strength and thickness to withstand normal installation and pit use. In gravelly or rocky soils, a suitable bedding material such as sand will be used prior to installing the liner.
7. The operator will seed on the contour to a depth of no more than 0.5 inch. To maintain quality and purity, certified seed with a minimum germination rate of 80% and a minimum purity of 90% will be used. On BLM surface or in lieu of a different specific mix desired by the surface owner, use the following:

**10-14" Precipitation Zone
Shallow Loamy Ecological Site Seed Mix**

Species	% in Mix	Lbs PLS*
<i>Thickspike Wheatgrass</i> (<i>Elymus lanceolatus</i> ssp. <i>lanceolatus</i>)	50	6.0
<i>Bluebunch wheatgrass</i> (<i>Pseudoroegneria spicata</i> ssp. <i>Spicata</i>)	35	4.2
<i>Prairie coneflower</i> (<i>Ratibida columnifera</i>)	5	0.6
<i>White or purple prairie clover</i> (<i>Dalea candidum</i> , <i>purpureum</i>)	5	0.6
<i>Rocky Mountain beeplant</i> (<i>Cleome serrulata</i>) /or <i>American vetch</i> (<i>Vicia americana</i>)	5	0.6
Totals	100%	12 lbs/acre

*PLS = pure live seed. Northern Plains adapted species
Double this rate if broadcast seeding

8. The operator will collect a water sample representative of the water produced from this (these) wells for analysis within 30 to 60 days of initial production. Results of the analysis will be submitted to the BLM Authorized Officer as soon as they become available. The constituents analyzed in the water quality analyses will be the same as those required by the WDEQ for WYPDES permit using approved EPA test procedures (40CFR136 or 40CRF136.5).
9. After well completion, the operator shall submit a Sundry Notice for approval of disposal of all produced water in accordance with Onshore Order #7.

Wildlife

Raptors and Migratory Birds

1. No surface disturbing activities are permitted for the Leavitt 21-7TH well and all associated infrastructure between February 1 and July 31 to protect nesting raptors and migratory birds. This condition will be implemented on an annual basis for the duration of surface disturbing activities (Operator Committed Measure).
2. Migratory birds shall be effectively excluded from all facilities that pose a mortality risk, including, but not limited to, heater treaters, flare stacks, and secondary containment where escape may be difficult or wildlife toxicants are present.
3. If an undocumented raptor nest is located during project construction or operation, the Buffalo Field Office (307-684-1100) shall be notified within 24 hours.

Greater Sage-grouse

1. No surface disturbing activities are permitted during sage-grouse breeding and nesting periods (March 15 – June 30), for the Leavitt 21-7TH well and all associated infrastructure.
2. A sage-grouse lek survey within 2 miles of the project area will be conducted by a BLM approved biologist following the most current WGFD protocol. All survey results shall be submitted in writing to a Buffalo BLM biologist no later than July 31 of the current year. This condition will be

implemented on an annual basis for the duration of surface disturbing activities. If a previously unknown lek is identified during surveys (April 1-May 7), a Buffalo BLM biologist shall be notified.

3. Disruptive activity is restricted on or within one quarter (0.25) mile radius of the perimeter of occupied or undetermined sage-grouse leks from 6 pm to 8 am from March 15 – May 15. This condition will apply to the access road and pipeline, occurring within 0.25 miles of the Spring Creek lek, for the life of the project.

STANDARD

General

1. A pre-construction field meeting shall be conducted prior to beginning any dirt work approved under this POD. The operator shall contact the BLM Authorized Officer Debby Green, NRS at (307)684-1058 at least 4-days prior to beginning operations so that the meeting can be scheduled. The well pad will be completely slope staked for the pre-construct meeting. The operator is responsible for having all contractors present (dirt contractors, drilling contractor, etc.), and for providing all contractors copies of the approved APD, project map and BLM Conditions of Approval pertinent to the work that each will be doing.
2. If any cultural values [sites, artifacts, human remains (Appendix L FEIS)] are observed during operation of this lease/permit/right-of-way, they will be left intact and the Buffalo Field Manager notified. The authorized officer will conduct an evaluation of the cultural values to establish appropriate mitigation, salvage or treatment. The operator is responsible for informing all persons in the area who are associated with this project that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during construction, the operator is to immediately stop work that might further disturb such materials, and contact the authorized BLM officer (AO). Within five working days the AO will inform the operator as to:
 - whether the materials appear eligible for the National Register of Historic Places;
 - the mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not necessary); and,
 - a time-frame for the AO to complete an expedited review under 36 CFR 800.11 to confirm, through the State Historic Preservation Officer, that the findings of the AO are correct and that mitigation is appropriate. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction measures.
3. If paleontological resources, either large or conspicuous, and/or a significant scientific value are discovered during construction, the find will be reported to the Authorized Officer immediately. Construction will be suspended within 250 feet of said find. An evaluation of the paleontological discovery will be made by a BLM approved professional paleontologist within five (5) working days, weather permitting, to determine the appropriate action(s) to prevent the potential loss of any significant paleontological values. Operations within 250 feet of such a discovery will not be resumed until written authorization to proceed is issued by the Authorized Officer. The applicant will bear the cost of any required paleontological appraisals, surface collection of fossils, or salvage of any large conspicuous fossils of significant scientific interest discovered during the operation.
4. Please contact Debby Green Natural Resource Specialist, at (307) 684-1058, Bureau of Land Management, Buffalo, if there are any questions concerning the following surface use COAs.

DRILLING AND PRODUCTION OPERATIONS

1. Verbal notification shall be given to the Authorized Officer at least 24 hours before formation tests, BOP tests, running and cementing casing, and drilling over lease expiration dates.
2. New hard-band drill pipe shall not be rotated inside any casing. Hard-band drill pipe shall be considered new until it has been run at least once.
3. All Blow Out Prevention Equipment tests shall include a 5 minute low pressure test between 250 psi and 500 psi with no drop in pressure with the only exception being the chokes. The chokes are only required to have the high pressure test held for a minimum length of time necessary to verify their functional integrity.
4. All operations must be conducted in accordance with all applicable laws and regulations: with the lease terms, Onshore Oil and Gas Orders, NTL's; and with other orders and instructions of the Authorized Officer, unless a variance has been granted in writing by the Authorized Officer.
5. The Operator shall install an identification sign consistent with the requirements of 43 CFR 3162.6 immediately upon or before the completion of the well pad construction operations.
6. All Blow Out Prevention Equipment rated 5M or greater shall be isolated from the casing and tested to stack working pressure. All Blow Out Prevention Equipment tests shall be performed by a suitable test pump, not the rig-mud pumps and recorded on a chart. The chart shall be submitted to the Buffalo Field Office.
7. Low test on Blow Out Prevention Equipment shall be performed and passed before moving onto the high test for each component.
8. If there are indications of inadequate primary cementing of the surface, intermediate, or production casing strings; such as but not limited to no returns to surface, cement channeling, fallback or mechanical failure of equipment, the operator will evaluate the adequacy of the cementing operations. This evaluation will consist of running a cement bond log (CBL) or an alternate method approved by the Authorized Officer (AO) no sooner than 12 hours and no later than 24 hours from the time the cement was first pumped.
9. If the evaluation indicates inadequate cementing, the operator shall contact a BLM Buffalo Field Office Petroleum Engineer for approval of remedial cementing work.
10. The adequacy of the remedial cementing operations shall be verified by a cement bond log (CBL) or an alternate method approved by the Authorized Officer (AO). All remedial work shall be completed and verified prior to drilling out the casing shoe or perforating the casing for purposes other than remedial cementing.
11. The cement mix water used must be of adequate quality so as not to degrade the setting properties of the cement. Any water that does not meet municipal quality water standards shall be tested by mixing the water and cement in a lab and comparing the results to the municipal quality water mix results. If the results show that the cement qualities are not the same or greater, than the non-municipal water shall not be used for mixing cement in the well.

12. All oil and gas operations shall be conducted in a manner to prevent the pollution of all freshwater resources. All fresh waters and waters of present or probable future value for domestic, municipal, commercial, stock or agricultural purposes will be confined to their respective strata and shall be adequately protected. Special precautions will be taken to guard against any loss of artesian water from the strata in which it occurs and the contamination of fresh water by objectionable water, oil, condensate, gas or other deleterious substance to such fresh water.
13. Any changes to the approved drilling plan and/or these conditions of approval shall be approved by the BLM-Buffalo Field Office Petroleum Engineer prior to being implemented.
After hour's numbers:
Petroleum Engineer: Matthew Warren Cell Telephone: 307-620-0103

Construction

1. Construction and drilling activity will not be conducted using frozen or saturated soil material during periods when watershed damage or excessive rutting is likely to occur.
2. Remove all available topsoil (depths vary from 4 inches on ridges to 12+ inches in bottoms) from constructed well locations including areas of cut and fill, and stockpile at the site. Topsoil will also be salvaged for use in reclamation on all other areas of surface disturbance (roads, pipelines, etc.). Clearly segregate topsoil from excess spoil material. Any topsoil stockpiled for one year or longer will be signed and stabilized with annual ryegrass or other suitable cover crop.
3. The operator will not push soil material and overburden over side slopes or into drainages. All soil material disturbed will be placed in an area where it can be retrieved without creating additional undue surface disturbance and where it does not impede watershed and drainage flows.
4. Construct the backslope no steeper than ½:1, and construct the foreslope no steeper than 2:1, unless otherwise directed by the BLM Authorized Officer.
5. Maintain a minimum 20-foot undisturbed vegetative border between toe-of-fill of pad and/or pit areas and the edge of adjacent drainages, unless otherwise directed by the BLM Authorized Officer.
6. To minimize electrocution potential to birds of prey, all overhead electrical power lines will be constructed to standards identified by the Avian Power Line Interaction Committee (2006).
7. The reserve pit will be oriented to prevent collection of surface runoff. After the drilling rig is removed, the operator may need to construct a trench on the uphill side of the reserve pit to divert surface drainage around it. If constructed, the trench will be left intact until the pit is closed.
8. The reserve pit will be constructed so that at least half of its total volume is in solid cut material (below natural ground level).
9. Culverts will be placed on channel bottoms on firm, uniform beds, which have been shaped to accept them, and aligned parallel to the channel to minimize erosion. Backfill will be thoroughly compacted.
10. The minimum diameter for culverts will be 18 inches. However, all culverts will be appropriately sized in accordance with standards in BLM Manual 9113.
11. Construction and other project-related traffic will be restricted to approved routes. Cross-country vehicle travel will not be allowed.

12. Maximum design speed on all operator constructed and maintained roads will not exceed 25 miles per hour.
13. Pipeline construction shall not block nor change the natural course of any drainage. Pipelines shall cross perpendicular to drainages. Pipelines shall not be run parallel in drainage bottoms. Suspended pipelines shall provide adequate clearance for maximum runoff.
14. Pipeline trenches shall be compacted during backfilling. Pipeline trenches shall be routinely inspected and maintained to ensure proper settling, stabilization and reclamation.
15. During construction, emissions of particulate matter from well pad and road construction would be minimized by application of water or other non-saline dust suppressants with at least 50 percent control efficiency. Dust inhibitors (surfacing materials, non-saline dust suppressants, and water) will be used as necessary on unpaved roads that present a fugitive dust problem. The use of chemical dust suppressants on public surface will require prior approval from the BLM Authorized Officer.
16. Operators are required to obtain a National Pollution Discharge Elimination System (NPDES) Storm Water Permit from the Wyoming DEQ for any projects that disturb five or more acres (changing to one acre in March 2005). This general construction storm water permit must be obtained from WDEQ prior to any surface disturbing activities and can be obtained by following directions on the WDEQ website at <http://deq.state.wy.us>. Further information can be obtained by contacting Barb Sahl at (307) 777-7570.
17. The operator shall submit a Sundry Notice (Form 3160-5) to BLM for approval prior to construction of any new surface disturbing activities that are not specifically addressed in the approved APD Surface Use Plan.

Operations/Maintenance

1. Confine all equipment and vehicles to the access road(s), pad(s), and area(s) specified in the approved APD.
2. All waste, other than human waste and drilling fluids, will be contained in a portable trash cage. This waste will be transported to a State approved waste disposal site immediately upon completion of drilling operations. No trash or empty barrels will be placed in the reserve pit or buried on location. All state and local laws and regulations pertaining to disposal of human and solid waste will be complied with.
3. Rat and mouse holes shall be filled and compacted from the bottom to the top immediately upon release of the drilling rig from the location.
4. The operator will be responsible for prevention and control of noxious weeds and weeds of concern on all areas of surface disturbance associated with this project (well locations, roads, water management facilities, etc.) Use of pesticides shall comply with the applicable Federal and State laws. Pesticides shall be used only in accordance with their registered uses and within limitations imposed by the Secretary of Interior. Prior to the use of pesticides on public land, the holder shall obtain from the BLM authorized officer written approval of a plan showing the type and quantity of material to be used, pest(s) to be controlled, method of application, location of storage and disposal of containers, and any other information deemed necessary by the authorized officer to such use.
5. Sewage shall be placed in a self-contained, chemically treated porta-potty on location.

6. The operator and their contractors shall ensure that all use, production, storage, transport and disposal of hazardous and extremely hazardous materials associated with the drilling, completion and production of this well will be in accordance with all applicable existing or hereafter promulgated federal, state and local government rules, regulations and guidelines. All project-related activities involving hazardous materials will be conducted in a manner to minimize potential environmental impacts. In accordance with OSHA requirements, a file will be maintained onsite containing current Material Safety Data Sheets (MSDS) for all chemicals, compounds and/or substances which are used in the course of construction, drilling, completion and production operations.
7. Produced fluids shall be put in test tanks on location during completion work. Produced water will be put in the reserve pit during completion work per Onshore Order #7.
8. The only fluids/waste materials which are authorized to go into the reserve pit are RCRA exempt exploration and production wastes. These include:
 - drilling muds & cuttings
 - rigwash
 - excess cement and certain completion & stimulation fluids defined by EPA as exemptIt does not include drilling rig waste, such as:
 - spent hydraulic fluids
 - used engine oil
 - used oil filter
 - empty cement, drilling mud, or other product sacks
 - empty paint, pipe dope, chemical or other product containers
 - excess chemicals or chemical rinsateAny evidence of non-exempt wastes being put into the reserve pit may result in the BLM Authorized Officer requiring specific testing and closure requirements.
9. Operators are advised that prior to installation of any oil and gas well production equipment which has the potential to emit air contaminants, the owner or operator of the equipment must notify the Wyoming Department of Environmental Quality, Air Quality Division (phone 307-777-7391) to determine permit requirements. Examples of pertinent well production equipment include fuel-fired equipment (e.g., diesel generators), separators, storage tanks, engines and dehydrators.

DryHole/Reclamation

1. All disturbed lands associated with this project, including the pipelines, access roads, water management facilities, etc will be expediently reclaimed and reseeded in accordance with the surface use plan and any pertinent site-specific COAs.
2. Disturbed lands will be recontoured back to conform with existing undisturbed topography. No depressions will be left that trap water or form ponds.
3. The fluids and mud must be dry in the reserve pit before recontouring pit area. The operator will be responsible for recontouring of any subsidence areas that develop from closing a pit before it is completely dry. The plastic pit liner (if any) will be cut off below grade and properly disposed of at a state authorized landfill before beginning to recontour the site.

4. Before the location has been reshaped and prior to redistributing the topsoil, the operator will rip or scarify the drilling platform and access road on the contour, to a depth of at least 12 inches. The rippers are to be no farther than 24 inches apart.
5. Distribute the topsoil evenly over the entire location and other disturbed areas. Prepare the seedbed by disking following the contour.
6. Waterbars are to be constructed at least one (1) foot deep, on the contour with approximately two (2) feet of drop per 100 feet of waterbar to ensure drainage, and extended into established vegetation. All waterbars are to be constructed with the berm on the downhill side to prevent the soft material from silting in the trench. The initial waterbar should be constructed at the top of the backslope. Subsequent waterbars should follow the following general spacing guidelines:

Slope (percent)	Spacing Interval (feet)
≤ 2	200
2 – 4	100
4 – 5	75
≥ 5	50

7. BLM will not release the performance bond until the area has been successfully revegetated (evaluation will be made after the second complete growing season) and has met all other reclamation goals of the surface owner and surface management agency.
8. A Notice of Intent to Abandon and a Subsequent Report of Abandonment must be submitted for abandonment approval.
9. For performance bond release approval, a Final Abandonment Notice (with a surface owner release letter on split-estate) must be submitted prior to a final abandonment evaluation by BLM.
10. Soil fertility testing and the addition of soil amendments may be required to stabilize some disturbed lands.
11. Any mulch utilized for reclamation needs to be certified weed free.

Producing Well

1. Landscape those areas not required for production to the surrounding topography as soon as possible. The fluids and mud must be dry in the reserve pit before recontouring pit area. The operator will be responsible for recontouring and reseeding of any subsidence areas that develop from closing a pit before it is completely dry.
2. Reduce the backslope to 2:1 and the foreslope to 3:1, unless otherwise directed by the BLM Authorized Officer. Reduce slopes by pulling fill material up from foreslope into the toe of cut slopes.
3. Production facilities (including dikes) must be placed on the cut portion of the location and a minimum of 15 feet from the toe of the back cut unless otherwise approved by the BLM Authorized Officer.
4. A dike will be constructed completely around the production facilities (i.e. production tanks, water tanks, and heater-treater). The dikes for the production facilities must be constructed of impermeable soil, hold 110% of the capacity of the largest tank plus 1-foot of freeboard, and be independent of the back cut.

5. Any chemicals used in treating the wells (e.g., corrosion inhibitor, emulsion breaker, etc.) will be in a secure, fenced-in area with appropriate secondary containment structure (dikes, catchment pan, etc.).
6. The load out line coming from the oil/condensate tank(s) will have a suitable containment structure to capture and recycle any oil spillage that might occur.
7. Individual production facilities (tanks, treaters, etc.) will be adequately fenced off (if entire facility not already fenced off).
8. Any spilled or leaked oil, produced water or treatment chemicals must be reported in accordance with NTL-3A and immediately cleaned up in accordance with BLM requirements. This includes clean-up and proper disposition of soils contaminated as a result of such spills/leaks.
9. Distribute stockpiled topsoil evenly over those areas not required for production and reseed as recommended.
10. Upgrade and maintain access roads and drainage control (e.g., culverts, drainage dips, ditching, crowning, surfacing, etc.) as necessary and as directed by the BLM Authorized Officer to prevent soil erosion and accommodate safe, environmentally-sound access.
11. Prior to construction of production facilities not specifically addressed in the APD/POD, the operator shall submit a Sundry Notice to the BLM Authorized Officer for approval.
12. If not already required prior to constructing and drilling the well location, the operator shall immediately upgrade the entire access road to BLM standards (including topsoiling, crowning, ditching, drainage culverts, surfacing, etc.) to ensure safe, environmentally-sound, year-round access.
13. Waterbars shall be installed on all reclaimed pipeline corridors per the guidelines in A.4.2.4 #6.